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**United States Patent** [19]

Semaan

[11] **Patent Number:** **5,680,392**[45] **Date of Patent:** **Oct. 21, 1997****[54] MULTIMEDIA MULTIPONT  
TELECOMMUNICATIONS RESERVATION  
SYSTEMS****[75] Inventor:** Ghassan Semaan, Montreal, Canada**[73] Assignee:** General DataComm, Inc., Middlebury, Conn.**[21] Appl. No.:** 586,259**[22] Filed:** Jan. 16, 1996**[51] Int. Cl.<sup>6</sup>** ..... H04L 12/18**[52] U.S. Cl.** ..... 370/261; 348/15; 379/204**[58] Field of Search** ..... 348/12, 14, 15; 370/260, 261, 263; 379/202, 204**[56] References Cited****U.S. PATENT DOCUMENTS**

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**[57] ABSTRACT**

Reservation controllers and reservation systems for reservation of access to multimedia multipoint telecommunications servers (MCUs) are provided. The reservation controller establishes a reservation domain having a reservation request channel on which reservation applications may be taken. An ongoing reservation conference is associated with the reservation domain. The reservation domain is preferably established within the ITU-T T.120 standard series requirements, with multipoint connection under T.122/T.125, and interface to profiles such as ISDN, TCP/IP, X.25, ATM, Ethernet, etc., under T.123. A user makes reservations for MCU resources by knowing the address of the reservation domain, attaching himself to the reservation domain, joining the reservation conference via establishing one or more transport connections, and sending the reservation request onto the reservation request channel. All reservation requests forwarded onto the reservation request channel are received and acted upon by the reservation controller. Reservation systems utilizing a plurality of reservation controllers are also disclosed, where the reservation controllers are part of the same domain, are arranged in multiple domains on a single level, or are arranged in hierarchical domains. Where more than one reservation domain is established, same-level or hierarchical level bridges are established.

**22 Claims, 6 Drawing Sheets**